

[0027]

Sequence Listing

<110> President of Nara Institute Science and Technology

<120> Theobromine synthase polypeptide of coffee plant and the gene encoding said

5 polypeptide

<160> 8

<210> 1

<211> 378

<212> Amino acid

10 <213> Coffea arabica

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EKENGRKIGS CLISAMPGSF YGRLFPEESM HFLHSCYSVH WLSQVPSGLV IELGIGANKG 180
15 SIYSSKGCPR PVQKAYLDQF TKDFTTFLRI HSKELFSRGR MLLTCICKVD EFDEPNPLDL 240
LDMAINDLIV EGLLEEEKLD SFNIPFFTPS ABEVKCIVEE EGSCEILYLE TFKAHYDAAF 300
SIDDDYPVRS HEQIKAERYVA SLIRSVYEPI LASHFGEAIM PDLFHRLAKH AAKVLHMGKG 360
CYNLIISLA KKPEKSDV 378

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20 <211> 1298

<212> Nucleic acid

<213> Coffea arabica

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GGTGAAACCT TTCCTTGAAC AATGCATACG AGAATTGTTG CGGGCCAAC TGCCCAACAT 180
CAACAAGTGC ATTAAAGTTG CGGATTTGGG ATGCGCTTCT GGACCAAACA CACTTTTAAC 240
AGTGCGGGAC ATTGTGCAAA GTATTGACAA AGTTGGCCAG GAAGAGAAGA ATGAATTAGA 300
ACGTCCCACC ATTCAGATTT TTCTGAATGA TCTTTTCCAA AATGATTTC ATTCCGTTTT 360
30 CAAGTTGCTG CCAAGCTTCT ACCGCAAACT CGAGAAAGAA AATGGACGCA AGATAGGATC 420
GTGCCTAATA AGCGCAATGC CTGGCTCTTT CTACGGCAGA CTCTTCCCCG AGGAGTCCAT 480
GCATTTTTTG CACTCTTGTT ACAGTGTTCA TTGGTTATCT CAGGTTCCCA GCGGTTTGGT 540

GATTGAATTG GGGATTGGTG CAAACAAAGG GAGTATTTAC TCTTCCAAAG GATGTCGTCC 600
 GCCCGTCCAG AAGGCATATT TGGATCAATT TACGAAAGAT TTTACCACAT TTCTAAGGAT 660
 TCATTCGAAA GAGTTGTTTT CACGTGGCCG AATGCTCCTT ACCTGCATTT GTAAAGTAGA 720
 TGAATTCGAC GAACCGAATC CCCTAGACTT ACTTGACATG GCAATAAACG ACTTGATTGT 780
 5 TGAGGGACTT CTGGAGGAAG AAAAATTGGA TAGTTTCAAT ATTCCATTCT TTACACCTTC 840
 AGCAGAAGAA GTAAAGTGCA TAGTTGAGGA GGAAGGTTCT TGCGAAATTT TATATCTGGA 900
 GACTTTTAAG GCCCATTATG ATGCTGCCTT CTCTATTGAT GATGATTACC CAGTAAGATC 960
 CCATGAACAA ATTAAAGCAG AGTATGTGGC ATCATTAATT AGATCAGTTT ACGAACCCAT 1020
 CCTCGCAAGT CATTTTGGAG AAGCTATTAT GCCTGACTTA TTCCACAGGC TTGCGAAGCA 1080
 10 TGCAGCAAAG GTTCTCCACA TGGGCAAAGG CTGCTATAAT AATCTTATCA TTTCTCTCGC 1140
 CAAAAAGCCA GAGAAGTCAG ACGTGTAATA GTTTGTTTTT AGTTGGTTTT TGTGCCGTTG 1200
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 ATTTAGTACA ATATTTTCAT AAAAAAAAAA AAAAAAAAAA 1298

<210> 3

15 <211> 385

<212> Amino acid

<213> Coffea arabica

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 LEKENGRKIG SCLIAAMPGS FHGRLFPES MHFLHSSYSL QFLSQVPSGL VTELGITANK 180
 RSIYSSKASP PPVQKAYLDQ FTKDFTTFLR MRSEELLSRG RMLLTICKG DECDGPNTMD 240
 LLEMAINDLV AEGRLGEEKL DSNVPIYTA SVEEVKCMVE EEGSFEILYL QTFKLRYDAG 300
 FSIDDDCQVR SHSPVYSDEH ARAAHVASLI RSVYEPILAS HFGEAIIPDI FHRFATNAAK 360
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<212> Nucleic acid

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 AGTTGCAGAT TTGGGATGCG CTTCCGGACC AAACACACTT TTAACCGTTT GGGACACTGT 240
 ACAAAGTATT GACAAAGTTA AGCAAGAAAT GAAGAATGAA TTAGAACGTC CCACCATTCA 300
 5 GGTTTTTCTG ACTGATCTTT TCCAAAATGA TTTCAATTCG GTTTTCATGC TGCTGCCAAG 360
 CTTCTACCGC AACTTTGAGA AAGAAAATGG ACGCAAAATA GGATCGTGCC TAATAGCCGC 420
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 10 ATATTTGGAT CAATTTACGA AAGATTTTAC CACATTTTTA AGGATGCGTT CGGAAGAGTT 660
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 15 TTATGATGCT GGCTTCTCTA TTGATGATGA TTGCCAAGTA AGATCCCATT CCCCAGTATA 960
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 CATCCTAGCA AGTCATTTTG GAGAAGCTAT TATACCTGAC ATATTCCACA GGTTTGCGAC 1080
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 20 TGGGTTGTTT TCTGATACGG GGAAAGGATT CAGTGCGGTT GGGGTTCTAT CCGAGTATTG 1260
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<210> 5

<211> 385

25 <212> Amino acid

<213> *Coffea arabica*

<400> 5

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 30 LEKENGRKIG SCLIAAMPGS FHGRFPPEES MHFLHSSYSL QFLSQVPSGL VTELGITANK 180
 RSIYSSKASP PPVQKAYLDQ FTKDFTTFLR IRSEELLSRG RMLLTICKG DEFDPNTMD 240
 LLEMAINDLV VEGHLEEEKL DSNVPIYAA SVEELKCIVE EEGSFEILYL ETFKLYRDAG 300

FSIDDDCQVR SHSPEYSDEH ARAAHVASLL RSVYEPILAN HFGEAIIPDI FHRFATNAAK 360
VIRLGKGFYN NLIISLAKKP EKSDI 385

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<211> 1304

5 <212> Nucleic acid

<213> Caffea arabica

<400> 6

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10 ACTGGTTCTC GCCAAGGTGA AACCTGTCCT TGAACAATGC GTAGGGGAAT TGTTGCGGGC 180
CAACTTGCCC AACATCAACA AGTGCATTAA AGTTGCGGAT TTGGGATGCG CTTCCGGACC 240
AAACACACTT TTAACAGTTC GGGACATTGT ACAAAGTATT GACAAAGTTA GGCAAGAAAT 300
GAAGAATGAA TTAGAACGTC CCACCATTCA GGTTTTTCTG ACTGATCTTT TCCAAAATGA 360
TTTCAATTCTG GTTTTCATGT TGCTGCCAAG TTTCTACCGC AAACCTTGAGA AAGAAAATGG 420
15 ACGCAAGATA GGATCGTGCC TAATAGCCGC AATGCCTGGC TCTTTCCACG GCAGACTCTT 480
CCCCGAGGAG TCAATGCATT TTTTACACTC TTCTTACAGT CTTCAATTTT TATCCAGGT 540
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20 CATTTGCAAA GGAGATGAAT TCGACGGCCC GAATACCATG GACTTACTTG AGATGGCAAT 780
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25 GGCATCATTA CTTAGATCAG TTTACGAACC CATCCTCGCA AATCATTTTG GAGAAGCTAT 1080
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<210> 7

<211> 372

<212> Amino acid

<213> Coffea arabica

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LEKENGRIKIG SCLIGAMPGS FYSRLFPEES MHFLHSCYCL QWLSQVPSGL VTELGISTNK 180
GSIYSSKASR LPVQKAYLDQ FTKDFTTFLR IHSEELFSHG RMLLTCICKG VELDARNAID 240
10 LLEMAINDLV VEGHLEEEKL DSNLNPVYIP SAEVVKCIVE EEGSFEILYL ETKVLYDAG 300
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15 <212> Nucleic acid

<213> Coffea arabica

<400> 8

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20 AACTGTTTCT CGCCAAGGTG AAACCTGTCC TTGAACAATG CGTACGGGAA TTGTTGCGGG 180
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CAAACACACT TTTAACAGTT CGGGACATTG TCCAAAGTAT TGACAAAGTT GGCCAGGAAA 300
AGAAGAATGA ATTAGAACGT CCCACCATTG AGATTTTCTT GAATGATCTT TTCCCAAATG 360
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